

CLAIMS

What is claimed is:

- 1 1. A portable audio player comprising:
2 a communication port for facilitating bi-directional communication between the
3 portable audio player and a peripheral device; and
4 a processor operatively coupled to the communication port, the processor adapted
5 to determine a bit rate associated with communications from the peripheral
6 device.
- 1 2. The portable audio player of claim 1, wherein the communication port
2 operatively couples the portable audio player to the peripheral device via a wired
3 connection including a number of bus lines.
- 1 3. The portable audio player of claim 1, wherein the communication port
2 operatively couples the portable audio player to the peripheral device via a wireless
3 connection.
- 1 4. The portable audio player of claim 1, further comprising:
2 a universal asynchronous receiver transmitter for transmitting and receiving
3 communications to and from, respectively, the peripheral device via the
4 communication port.
- 1 5. The portable audio player of claim 1, wherein the processor has access to a
2 transceiver adapted to transmit and receive communications to and from, respectively, the
3 peripheral device via the communication port.
- 1 6. The portable audio player of claim 1, wherein the processor determines the
2 bit rate associated with communications from the peripheral device by adjusting a
3 receiving bit rate associated with the portable audio player until a known character
4 transmitted by the peripheral device is recognized by the portable audio player.

1 7. The portable audio player of claim 1, further comprising:
2 a storage unit for storing data received from the peripheral device.

1 8. The portable audio player of claim 1, further comprising:
2 a display unit for displaying information received from the peripheral device.

1 9. The portable audio player of claim 1, wherein the peripheral device
2 receives its power via the communication port from a power source included in the
3 portable audio player.

1 10. A portable audio player comprising:
2 a communication port for facilitating bi-directional communication between the
3 portable audio player and a peripheral device;
4 a transceiver operatively coupled to the communication port, the transceiver for
5 transmitting data to the peripheral device and for receiving data from the
6 peripheral device; and
7 a processor for adapting the transceiver to a bit rate associated with the peripheral
8 device.

1 11. A method for establishing a bi-directional communication link between a
2 portable audio player and a peripheral device, the method comprising:
3 transmitting known data from the peripheral device to the portable audio player at
4 a peripheral device bit rate;
5 determining the peripheral device bit rate in response to the portable audio player
6 recognizing the known data; and
7 confirming a valid communication link at the peripheral device bit rate.

1 12. The method of claim 11, wherein the bi-directional communication link
2 between the portable audio player and the peripheral device is a wired connection
3 including a number of bus lines.

1 13. The method of claim 11, wherein the bi-directional communication link
2 between the portable audio player and the peripheral device is a wireless connection.

1 14. The method of claim 11, wherein the step of determining the peripheral
2 device bit rate in response to the portable audio player recognizing the known data further
3 comprises:

4 adjusting a receiving bit rate associated with the portable audio player until a
5 known character transmitted by the peripheral device is recognized by the
6 portable audio player.

1 15. The method of claim 11, further comprising:
2 storing data received from the peripheral device in the portable audio device.

1 16. The method of claim 11, further comprising:
2 displaying information received from the peripheral device with the portable
3 audio device.

1 17. The method of claim 11, further comprising:
2 powering the peripheral device from a power source included in the portable
3 audio player.

1 18. The method of claim 11, wherein the step of confirming a valid
2 communication link further comprises:

3 transmitting a reply character from the portable audio player to the peripheral
4 device at the peripheral device bit rate; and
5 in response to the peripheral device recognizing the reply character, confirming a
6 valid communication link.

1 19. A method for establishing a bi-directional communication link between a
2 host device associated with a first bit rate and a peripheral device associated with a
3 second bit rate, the method comprising:

4 at the host device, receiving a known character from the peripheral device at the
5 second bit rate;
6 in response to the host device not recognizing the known character,
7 adjusting the first bit rate; and
8 repeating the receiving and adjusting steps until the host recognizes the
9 known character thereby indicating that the adjusted first bit
10 rate matches the second bit rate;
11 in response to the host device recognizing the known character, transmitting a
12 reply character at the adjusted first bit rate to the peripheral device to
13 confirm a valid bi-directional communication link between the host device
14 and the peripheral device.

1 20. A method for establishing a bi-directional communication link between a
2 host device and a peripheral device, the method comprising:
3 transmitting a known character from the peripheral device to the host device at a
4 peripheral device bit rate;
5 at the peripheral device, receiving a reply character from the host device at a
6 target bit rate that potentially matches the peripheral device bit rate; and
7 in response the reply character matching a known reply character, confirming the
8 target bit rate as matching the peripheral device bit rate thereby
9 establishing a valid bi-directional communication link between the host
10 device and the peripheral device.